

NOTES ON THE MAMMALS IN THREE HABITATS IN NORTH FLORIDA

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A study of the distribution of small mammals in three ecological situations in a wooded area in northern Florida was conducted during October, November and December, 1954. The site of the study was located approximately 12 miles northwest of Gainesville, Alachua County, in an area locally known as San Felasco. The three plots selected for trapping were located in Mesic Hammock, the climatic climax of the region, in Longleaf Pine Flatwoods and the ecotone between these two communities.

San Felasco hammock comprises the most extensive stand of hardwood trees remaining in Alachua County. Natural conditions are relatively undisturbed, as the area has been free from fire and logging for sometime. Characteristic and most abundant trees in the hammock are laurel oak (*Quercus laurifolia*),¹ magnolia (*Magnolia grandiflora*), and hop-hornbeam (*Ostrya virginiana*). Common understory plants are the American holly (*Ilex opaca*), horsesugar (*Smylocos tinctoria*), dogwood (*Cornus florida*), sweetgum (*Liquidambar styraciflua*), water oak (*Quercus nigra*), shortleaf pine (*Pinus glabra*), and blue stem palmetto (*Sabal minor*), Panic grass (*Panicum* spp.) grows in the more open areas and the heavily shaded portions are blanketed with a thick leaf mold.

The topography of the pine woods is level and the soil is sandy. Longleaf pine (*Pinus palustris*) is the dominate plant. Plants of the understory include wax myrtle (*Myrica cerifera*), clumps of saw palmetto (*Serenoa repens*) and wire grass (*Aristida stricta*).

The dominate plant of the ecotone is live oak (*Quercus virginiana*). Southern red oak (*Quercus falcata*) occurs in large stands, and characteristic trees from the hammock and flatwoods, on either side of the ecotone, are found. *Andropogon* is the principal herbaceous plant. The ground is covered with relatively little litter and large areas of bare sand are common.

¹ References for Botanical nomenclature are West and Arnold (1946) for trees and Small (1933) for other plants.

METHODS

Small Sherman live traps were set at random, approximately 25 paces apart or in groups of five and were baited with a mixture of peanut butter, bacon grease, raw hamburger and corn meal. Twenty-four traps were set in the flatwoods for a total of 600 trap nights, 25 traps in the ecotone for 250 trap nights and 18 in the hammock for 90 trap nights. In the total of 940 trap nights involved in the study, 54 small mammals were taken, a frequency of capture equalling one individual per 17.7 trap-nights.

Steel traps and large wire traps were also placed in the three habitats wherever sign of larger animals was evident.

Collecting sites were visited daily insofar as possible.

Measurements are in millimeters and weights are in grams. They are given in the following order: total length, tail length, length of hind foot, ear length from crown to tip, and weight.

ACCOUNT OF SPECIES

Didelphis marsupialis pigra Bangs, Opossum.—Denning sites were found in the hammock, where a single immature male was taken. Measurements were not recorded.

Cryptotis floridana (Merriam), Short-tailed Shrew.—A single female was trapped in the flatwoods at the entrance of an underground burrow beneath a well-decayed pine log.

Measurements: Head and body length 66 (tail missing), hind-foot 11; weight 5.1 grams.

Scalopus aquaticus australis (Chapman), Common Mole.—Mole tunnels were observed in the sandy road which traversed all study sites. No specimens were obtained.

Sylvilagus floridanus mallurus (Thomas), Eastern Cotton-tail.—Tracks and fecal pellets were observed in the flatwoods and ecotone.

Sciurus carolinensis carolinensis Gmelin, Gray Squirrel.—Nests and kitchen middens were plentiful in the hammock, although squirrels were rarely seen. No collections were made of this species.

Sciurus niger shermani Moore, Fox Squirrel.—One fox squirrel was seen at the edge of the hammock adjacent to the ecotone.

Geomys pinetis subsp., Pocket Gopher.—Mounds were present in both the flatwoods and the open, sandy areas of the ecotone, where they were more abundant.

Peromyscus gossypinus gossypinus (Le Conte), Cotton Mouse.—Although Moore (1946) records the cotton mouse from a variety of habitats it is interesting to note that in this study three males were taken, only from the hammock area.

One, which had fallen into an excavation, 3 feet deep and 2 feet wide, was found to have a bot fly larva, *Cuterebra*, lodged in the inguinal region. Alive, the larva measured 20.1 mm. X 10.3 mm.

Measurements of one male: 163, 65, 23, 8; 30 grams.

Peromyscus nuttalli aureolus (Audubon and Bachman), Golden Mouse.—One adult female was trapped at the base of a large fallen tree in the hammock. No tree nests were found. Her mammae were well developed but there was no obvious indication of developing embryos or placental scars.

Measurements: 152, 74, 8, 9; weight not recorded.

Peromyscus floridanus (Chapman), Florida Mouse.—Fifteen specimens, of which six were adult males, four adult females and five were male juveniles, were trapped in the ecotone. Three of these were taken in traps placed inside the entrance of gopher tortoise burrows. Another was taken in a trap placed underground, in a much smaller burrow, which may have been dug by the mouse.

Two females had well developed mammae. No embryos were found in the uterus of one examined.

Measurements of three adults are as follows: male, 169, 80, 25, 16; 25.4 grams; female, 188, 99, 23, 18; female, 198, 83, 23, 15; 33.1 grams.

Sigmodon hispidus subsp., Cotton-Rat.—The cotton-rat was found to be the most abundant mammal of the study area. On several occasions 19 rats were caught when 20 traps were set and often there would be two individuals in one trap. It was not unusual to see and hear them scurrying along the ground when walking through the flatwoods.

Five males, fifteen females and twelve of undetermined sex were trapped in the flatwoods. Only a single specimen, a male, was taken from the ecotone.

Procyon lotor elucus Bangs, Raccoon.—Fresh tracks were observed in the sandy edge of a small seepage stream, which drains from the hammock. Raccoons made frequent visits to the stream as indicated by numerous tracks.

Lynx rufus floridanus Rafinesque, Bobcat.—Bobcats were known to inhabit the area. Although they were not taken during the study period, in June, 1955, steel traps were set several miles northeast of the study area. An immature male was caught in a road-set baited for fox.

Measurements: 889, 162, 186, 81; 20 pounds.

LITERATURE CITED

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